The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



IFW16

RAW SEQUENCE LISTING

DATE: 11/17/2004

PATENT APPLICATION: US/10/040,655A

3 <110> APPLICANT: Andrade-Gordon, Patricia

TIME: 12:29:19

```
Darrow, Andrew
         Qi, Jenson
 7 <120> TITLE OF INVENTION: CLEANING COMPOSITIONS CONTAINING HUMAN SERINE PROTEASE T
 9 <130> FILE REFERENCE: ORT-1566
11 <140> CURRENT APPLICATION NUMBER: US 10/040,655A
12 <141> CURRENT FILING DATE: 2002-01-07
14 <150> PRIOR APPLICATION NUMBER: US 09/386,653
15 <151> PRIOR FILING DATE: 1999-08-31
17 <160> NUMBER OF SEQ ID NOS: 11
19 <170> SOFTWARE: PatentIn version 3.3
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 1110
23 <212> TYPE: DNA
24 <213> ORGANISM: Human
26 <400> SEQUENCE: 1
27 gaccacggcc ctgcgcccca gccaggcctg aggacatgag gcggccggcg gcggtgccgc
                                                                        60
29 teetgetget getgtgtttt gggteteaga gggeeaagge ageaacagee tgtggtegee
                                                                       120
31 ccaggatgct gaaccgaatg gtgggcgggc aggacacgca ggagggcgag tggccctggc
                                                                       180
33 aagtcagcat ccagcgcaac ggaagccact tctgcggggg cagcctcatc gcggagcagt
                                                                       240
35 gggtcctgac ggctgcgcac tgcttccgca acacctctga gacgtccctg taccaggtcc
                                                                       300
37 tgctggggc aaggcagcta gtgcagccgg gaccacacgc tatgtatgcc cgggtgaggc
39 aggtggagag caacccctg taccagggca cggctccag cgctgacgtg gccctggtgg
                                                                       420
41 agetggagge accagtgeee tteaccaatt acatecteee egtgtgeetg cetgaceeet
                                                                       480
43 cggtgatett tgagacggge atgaactget gggteactgg ctggggeage cecagtgagg
                                                                       540
45 aagaceteet geeegaaceg eggateetge agaaactege tgtgeeeate ategacacae
                                                                       600
47 ccaagtgcaa cctgctctac agcaaagaca ccgagtttgg ctaccaaccc aaaaccatca
                                                                       660
49 agaatgacat gctgtgcgcc ggcttcgagg agggcaagaa ggatgcctgc aagggcgact
                                                                       720
51 cgggcggccc cctggtgtgc ctcgtgggtc agtcgtggct gcaggcgggg gtgatcagct
                                                                       780
53 ggggtgaggg ctgtgcccgc cagaaccgcc caggtgtcta catccgtgtc accgcccacc
                                                                       840
55 acaactggat ccatcggatc atccccaaac tgcagttcca gccagcgagg ttgggcggcc
                                                                       900
57 agaagtgaga cccccggggc caggagcccc ttgagcagag ctctgcaccc agcctgcccg
                                                                       960
59 cccacaccat cctgctggtc ctcccagcgc tgctgttgca cctgtgagcc ccaccagact
                                                                      1020
1080
63 ccaataaaaa cccagcctgt gtgccagctg
                                                                      1110
66 <210> SEQ ID NO: 2
67 <211> LENGTH: 20
68 <212> TYPE: DNA
69 <213> ORGANISM: Artificial
71 <220> FEATURE:
72 <223> OTHER INFORMATION: ProtT PCRTP-U primer
74 <400> SEQUENCE: 2
75 gccaggcctg aggacatgag
                                                                       20
```

PATENT APPLICATION: US/10/040,655A

DATE: 11/17/2004 TIME: 12:29:19

```
78 <210> SEQ ID NO: 3
 79 <211> LENGTH: 20
 80 <212> TYPE: DNA
 81 <213> ORGANISM: Artificial
 83 <220> FEATURE:
 84 <223> OTHER INFORMATION: ProtT PCRTP-L
 86 <400> SEQUENCE: 3
 87 tgcgctggat gctgacttgc
                                                                            20
 90 <210> SEQ ID NO: 4
 91 <211> LENGTH: 40
 92 <212> TYPE: DNA
 93 <213> ORGANISM: Artificial
 95 <220> FEATURE:
 96 <223> OTHER INFORMATION: ProtT PCRTP-PP
 98 <400> SEQUENCE: 4
 99 ccaggatgct gaaccgaatg gtgggcgggc aggacacgca
                                                                            40
 102 <210> SEQ ID NO: 5
103 <211> LENGTH: 30
104 <212> TYPE: DNA
105 <213 > ORGANISM: Artificial
107 <220> FEATURE:
108 <223> OTHER INFORMATION: Prot T Xba-U
110 <400> SEQUENCE: 5
111 aggatctaga ggaggggag tggccctggc
                                                                            30
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 30
116 <212> TYPE: DNA
117 <213> ORGANISM: Artificial
119 <220> FEATURE:
120 <223> OTHER INFORMATION: Prot T Xba-L
122 <400> SEQUENCE: 6
123 ggggtctaga cttctggccg cccaacctcg
                                                                            30
126 <210> SEQ ID NO: 7
127 <211> LENGTH: 290
128 <212> TYPE: PRT
129 <213> ORGANISM: Human
131 <400> SEQUENCE: 7
133 Met Arg Arg Pro Ala Ala Val Pro Leu Leu Leu Leu Cys Phe Gly
137 Ser Gln Arg Ala Lys Ala Ala Thr Ala Cys Gly Arg Pro Arg Met Leu
138
                                     25
141 Asn Arg Met Val Gly Gly Gln Asp Thr Gln Glu Gly Glu Trp Pro Trp
142
            35
145 Gln Val Ser Ile Gln Arg Asn Gly Ser His Phe Cys Gly Gly Ser Leu
149 Ile Ala Glu Gln Trp Val Leu Thr Ala Ala His Cys Phe Arg Asn Thr
                                             75
153 Ser Glu Thr Ser Leu Tyr Gln Val Leu Leu Gly Ala Arg Gln Leu Val
154
                    85
```

PATENT APPLICATION: US/10/040,655A

DATE: 11/17/2004 TIME: 12:29:19

155	. Gln	Dro	G1v	Dro	uic	7 T -	Mark	Ш	77-	7	77 - 7	_	~ 7				
158	'Gln	FIO	GIY	100	птъ	AId	Met	lyr		Arg	vai	Arg	Gin		Glu	Ser	
		D	T		<b>~1</b>	<b>a</b> 1	m1 .		105	_		_		110			
162	Asn	PLO	115	TAT	GIII	GIY	Tnr	Ala	ser	Ser	Ala	Asp		Ala	Leu	Val	
		T 011			Dago	777	D	120	m1		_		125	_			
166	Glu	130	GIU	Ala	PIO	vaı		Pne	Thr	Asn	Tyr		Leu	Pro	Val	Cys	
			7 ~~	Dwo	000	tr_ 1	135	Dl	~7	-m1	~-7	140	_				
170	Leu 145	PIU	ASP	PIO	ser		тте	Pne	GIU	Thr		Met	Asn	Cys	Trp		
		C1,,	Trn	~1	Com	150	0	<b>a</b> 1	<b>01</b>		155	_	_			160	
174	Thr	GLY	пр	GIA		Pro	ser	GIU	GLU		Leu	Leu	Pro	Glu		Arg	
		T	<b>~1</b>	T	165			_		170					175		
178	Ile	ьец	GIII	ьys	Leu	Ala	vaı	Pro		He	Asp	Thr	Pro		Cys	Asn	
		T	m	180	-	_	_,		185	<b>-</b>		_		190			
101	Leu	ьeu	Tyr	ser	гàг	Asp	Thr		Phe	Gly	Tyr	Gln		Lys	Thr	Ile	
182			195		_	_		200					205				
185	Lys	Asn	Asp	Met	Leu	Cys		Gly	Phe	Glu	Glu	Gly	Lys	Lys	Asp	Ala	
186		210		_			215					220					
189	Cys	Lys	GLy	Asp	Ser		Gly	Pro	Leu	Val	Cys	Leu	Val	Gly	Gln	Ser	
	225	_		_		230					235					240	
193	$\mathtt{Trp}$	Leu	Gln	Ala		Val	Ile	Ser	Trp	Gly	Glu	Gly	Cys	Ala	Arg	Gln	
194		_			245					250					255		
197	Asn	Arg	Pro	Gly	Val	Tyr	Ile	Arg	Val	Thr	Ala	His	His	Asn	Trp	Ile	
198	•		_	260					265					270			
201	His	Arg	Ile	Ile	Pro	Lys			Phe	Gln	Pro	Ala	Arg	Leu	Gly	Gly	
202			275					280					285				
	Gln	_															
206		290															
	<210																
	210 <211> LENGTH: 1130																
	<212																
	<213				Arti	fici	al										
	<220																
	<223					'ION:	PFE	K-PR	OTT-	HIS	fusi	on p	rote	in			
	<400								•								
218	gaat	tcac	ca c	ccatg	gaca	g ca	aagg	ttcg	tcg	caga	aat	cccg	cctg	ct c	ctgc	tgctg	60
220	gtgg	tgtc	aa a	itcta	ctct	t gt	gcca	gggt	gtg	gtct	ccg	acta	caag	ga c	gacg	acgac	120
222	gtgg	acgc	gg c	cgct	cttg	c tg	cccc	cttt	gat	gatg	atg	acaa	gatc	gt t	qqqq	qctat	180
224	gctc	taga	gg a	ıgggc	gagt	g gc	cctg	gcaa	gtc	agca	tcc	agcg	caac	gg a	agcc	acttc	240
226	tgcg	9999	ca g	gaata	atcg	c gg	agca	gtgg	gtc	ctga	cgg	ctgc	gcac	tg c	ttcc	gcaac	300
228	acct	ctga	ga c	gtcc	ctgt	a cc	aggt	cctg	ctg	gggg	caa	ggca	gcta	gt g	cagc	cggga	360
230	ccac	acgc	ta t	gtat	gccc	g gg	tgag	gcag	gtg	gaga	gca	accc	cctg	ta c	cagg	gcacq	420
232	gcct	ccag	cg c	tgac	gtgg	C CC	tggt	ggag	ctg	gagg	cac	cagt	gada	tt c	acca	attac	480
234	atcc	tccc	cg t	gtgc	ctgc	c tg	accc	ctcg	gtg	atct	ttg	agac	gggc	at q	aact	actaa	540
236	gtca	ctgg	ct g	gggc	agcc	c ca	gtga	ggaa	gac	ctcc	tgc	ccga	accg	cq q	atcc	tqcaq	600
238	aaac	tcgc	tg t	gccc	atca	t cg	acaca	accc	aag	tgca	acc	tgate	ctaca	ag ca	aaag	acacc	660
240	gagt	ttgg	ct a	ccaa	ccca	a aa	ccat	caag	aat	gacat	tgc :	tgtg	cgcc	gg ci	ttcg	aqqaq	720
242	ggca	agaa	gg a	tgcc	tgca	a gg	gcga	ctcg	ggc	ggcc	CCC '	tggt	gtgc	et e	ataa	gtcag	780
244	tcgt	ggct	gc a	ggcg	gggg.	t gai	cago	ctgg	ggt	gagg	gct q	gtgc	caga	ca ga	aacc	gccca	840
246	ggtg	tcta	ca t	ccgt	gtca	c cg	ccca	ccac	aac	tggal	taa i	atego	gatca	at co	ccca	aactg	900
248	cagt	tcca	gc c	agcg	aggti	t ggg	gegge	ccag	aagt	tctad	gac a	atcad	ccato	ca co	catca	actag	960
									_							J	

PATENT APPLICATION: US/10/040,655A

DATE: 11/17/2004 TIME: 12:29:19

250	) cgg	geege	cttc	cctt	tagt	ga g	ggtt	aato	gc tt	cgaç	gcaga	a cat	gata	aga	taca	attgatg	1020
252	agt:	cggccgcttc cctttagtga gggttaatgc agtttggaca aaccacaact agaatgcagt							gt ga	gaaaaaaatq			ctttatttqt			itttata	1080
254	atg	3tggt3ttgg tttgg tttgt												1130			
257	<21	<210> SEQ ID NO: 9															
258	<211> LENGTH: 315																
259	212> TYPE: PRT																
260	<21	.3 > C	RGAN	IISM:	Art	ific	ial										
262	<22	0 > F	'EATU	RE:													
263	<22	3 > C	THER	INF	ORMA	TION	: PF	'EK-F	ROTI	-HIS	fus	ion	prot	ein	amin	o acid	sequence
265	<40	0 > S	EQUE	NCE:	9								F-00		um±1	o acia	bequence
267	Met	Asp	Ser	Lys	Gly	Ser	Ser	Gln	Lvs	Ser	Ara	Lei	ı Tıeı	I I.e.i	Len	Leu	
268	1	_		-	5					10		,			15	пса	
271	Val	Val	Ser	Asn	Leu	Leu	Leu	Cvs	Gln		Val	Va1	Ser	. Agn		Lys	
272				20				- 2	25	1				30	- Y -	цуз	
275	Asp	Asp	Asp	Asp	Val	Asp	Ala	Ala		Len	Δla	Δla	Pro		λαn	Asp	
276	_	•	35	-		-		40					45	1110	nsp	Asp	
279	Asp	Asp	Lys	Ile	Val	Glv	Glv	Tvr	Ala	Len	Glu	Glu		Glu	Тип	Pro	
280	_	50	•			2	55	-1-			. 014	60	. 019	Olu	115	FIO	
283	Trp	Gln	Val	Ser	Ile	Gln		Asn	Glv	Ser	His	Phe	Cve	G1 v	GI v	Ser	
284	65					70	5				75	1 110	Cys	Gry	GLY	80	
287	Leu	Ile	Ala	Glu	Gln	Trp	Val	Leu	Thr	Δla		His	Ctra	Dhe	λνα	Asn	
288					85					90	AIG	1113	Cys	FIIC	95	ASII	
291	Thr	Ser	Glu	Thr		Leu	Tvr	Gln	Val		T.e.11	Glv	בות י	Λrσ		Leu	
292				100			-1-	0111	105		шсц	Gry	ліа	110	GIII	neu	
295	Val	Gln	Pro	Gly	Pro	His	Ala	Met			Δτα	Val	7\ra		17-1	C1.,	
296			115	-				120		1114	**** 9	var	125	GIII	vai	Giu	
299	Ser	Asn	Pro	Leu	Tvr	Gln	Glv			Ser	Ser	Δla		T/2 T	ב [ מ	Lou	
300		130			-		135				001	140		val	AIG	ьeu	
303	Val	Glu	Leu	Glu	Ala	Pro		Pro	Phe	Thr	Asn			T.A11	Pro	Tall	
304	145					150					155	- 1 -	110	пси	110	160	
307	Cys	Leu	Pro	Asp	Pro	Ser	Val	Ile	Phe	Glu		Glv	Met	Δsn	Cvc	Trn	
308	_			-	165					170		J-1	••••	11011	175	11p	
311	Val	Thr	Gly	Trp	Gly	Ser	Pro	Ser	Glu		Asp	Leu	Leu	Pro	Glu	Pro	
312			_	180	•			-	185			_ou		190	O. u	110	
315	Arg	Ile	Leu	Gln	Lys	Leu	Ala	Val		Ile	Ile	Asp	Thr		Lvs	Cve	
316			195		-			200					205	110	2,5	Cyb	
319	Asn	Leu	Leu	Tyr	Ser	Lvs	Asp		Glu	Phe	Glv	Tur		Pro	Lvc	Thr	
320		210		-		•	215				1	220	0111	110	<b>1</b>	1111	
323	Ile	Lys	Asn	Asp	Met	Leu	Cvs	Ala	Glv	Phe	G] 11		Glv	Lvs	Lvc	Asn	
324	225	_		-		230	4		2		235		017	<b>L</b> , D	275	240	
327	Ala	Cys	Lys	Gly	Asp	Ser	Glv	Glv	Pro	Len			T.e.ii	Val	G] v		
328		-	•	•	245		1	1		250		0,2	cu	141	255	GIII	
331	Ser	Trp	Leu	Gln	Ala	Glv	Val	Ile	Ser		Glv	Glu	Glv	Cvs	Δla	Δνα	
332		-		260		4			265		1			270	u	1119	
	Gln	Asn	Arq	Pro	Gly	Val	Tyr	Ile		Val	Thr	Ala	Нiс		Agn	Trn	
336			275		-		. 1 -	280	3	. ~ 1		-114	285	.110	11911	115	
	Ile	His		Ile	Ile	Pro	Lys		G]n	Phe	Gln	Pro	Δla	Δra	T.e.i	Glv	
340		290		_			295				~~	300		3	<b>_</b> u	OI Y	
	Gly		Lys	Ser	Arq	His		His	His	Hiq	Hiq	200					
	-		-														

PATENT APPLICATION: US/10/040,655A

DATE: 11/17/2004 TIME: 12:29:19

```
344 305
                              310
                                                   315
     347 <210> SEQ ID NO: 10
     348 <211> LENGTH: 4
     349 <212> TYPE: PRT
     350 <213> ORGANISM: Artificial
     352 <220> FEATURE:
     353 <223> OTHER INFORMATION: Chromogenic substrate
     356 <220> FEATURE:
     357 <221> NAME/KEY: MISC_FEATURE
     358 <222> LOCATION: (1)..(1)
     359 <223> OTHER INFORMATION: N-Succinyl-alanine
     361 <220> FEATURE:
     362 <221> NAME/KEY: MISC_FEATURE
     363 <222> LOCATION: (4)..(4)
     364 <223> OTHER INFORMATION: Phe-p-nitroanilide
     366 <400> SEQUENCE: 10
W--> 368 Xaa Ala Pro Xaa
     369 1
     372 <210> SEQ ID NO: 11
     373 <211> LENGTH: 4
     374 <212> TYPE: PRT
     375 <213> ORGANISM: Artificial
     377 <220> FEATURE:
     378 <223> OTHER INFORMATION: Chromogenic substrate 6
     381 <220> FEATURE:
     382 <221> NAME/KEY: MISC_FEATURE
     383 <222> LOCATION: (1)..(1)
     384 <223> OTHER INFORMATION: N-(Methoxysuccinyl)-Ala
     386 <220> FEATURE:
     387 <221> NAME/KEY: MISC FEATURE
     388 <222> LOCATION: (4)..(4)
     389 <223> OTHER INFORMATION: Phe-p-nitroanilide
     391 <400> SEQUENCE: 11
W--> 393 Xaa Ala Ala Xaa
     394 1
```

RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/040,655A

DATE: 11/17/2004 TIME: 12:29:21

Input Set : A:\ORT1566NP.Subst.Seq.List.txt
Output Set: N:\CRF4\11172004\J040655A.raw

#### Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:10; Xaa Pos. 1,4 ( Seq#:11; Xaa Pos. 1,4

#### Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:2,3,4,5,6,8,9,10,11

#### VERIFICATION SUMMARY

PATENT APPLICATION: US/10/040,655A

DATE: 11/17/2004 TIME: 12:29:21

Input Set : A:\ORT1566NP.Subst.Seq.List.txt
Output Set: N:\CRF4\11172004\J040655A.raw

L:368 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0 L:393 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0